REMARKS/ARGUMENTS

After the foregoing Amendment, claims 1-11 and 13-29 are pending in the present application. Claims 1, 9-11, 13, 14, 21-23 and 28 were each amended to more clearly recite the present invention and no new matter was added. Claim 12 was cancelled and new claim 29 was added to present originally filed dependent claim 11 in independent form.

Withdrawal of all rejections is respectfully requested for the reasons set forth below.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 9 and 12 were rejected under 35 U.S.C. § 112, second paragraph as being incomplete for failing to recite any structure to accomplish a claimed result. Applicants respectfully traverse this rejection and request the withdrawal thereof for the following reasons.

In the present Amendment, claim 9 was amended to recite that the boom (20) includes "one of a first boom attachment and a second boom attachment" and that the control system is "configured to selectively display a first boundary for the first boom attachment and a second boundary for a second boom attachment". Thus, it is clear that the control system of the (32) is adjustable by alternatively displaying a different boundary (40) for each different attachment (26). Applicants believe that claim 9 as amended is therefore complete and request withdrawal of the rejection of claim 9 under 35 U.S.C. § 112, second paragraph.

Further with regard to claim 12, claim 12 was cancelled in the present amendment, such that the rejection of claim 12 under 35 U.S.C. § 112, second paragraph is now moot.

Rejection under 35 U.S.C. § 102(b)

Claims 1-8, 14-20, 25 and 28 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Patent No. 6,056,474 of Yoshimatsu et al ("Yoshimatsu et al."). Applicants respectfully traverse this rejection and request that the rejection be withdrawn for the following reasons.

With regard to apparatus claims 1-12, Yoshimatsu et al. does not anticipate the present invention because the reference does not teach or disclose a "frame configured or movement over the ground so as to transport the load" nor does it teach or disclose a "boom attachment coupled with the boom upper end and configured to support the load proximal to the upper end" as recited in independent claim 1 as amended. The present invention is directed to a material

handler (10) that is used to lift and transport loads between various locations, one type of which is commonly referred to as a "forklift" vehicle. Specifically, the material handler (10) includes a frame (12) with front and rear wheels (14), (16) supporting the frame (12) for movement over ground. The material handler (10) has a telescoping boom (20) with a lower end (22) coupled to the frame (12) and an upper end (24). An attachment (26), such a fork, a bucket, a trust boom, or any other type of boom attachment, is coupled to the upper end (24) of the boom (20), such that the attachment (26) is configured to support a load generally proximal to the boom upper end (24), as best shown in Fig. 2. The material handler (10) basically functions to pick-up and lift a load at one location using the attachment (26), mobilizes upon the wheels (14), (16) to move the load to another location, and then deposits or unloads the load at the other location.

Yoshimatsu et al. teaches a crane (10) that includes a lower frame with wheels (neither indicated), an upper frame or "boom foot" (102) rotatably mounted to the frame, and a pivotable and extensible boom (B) attached to the boom foot (102). A rope (104) is attached to the boom (B) and used suspend cargo (C) from the boom (B). Further, the crane (10) also includes four outrigger jacks (105) attached to each corner of the lower frame. Alternatively, the crane (10) may include extensible crawlers (not shown) mounted to each side of the lower frame and extendable in widthwise directions with respect of the frame (see column 14, lines 1-11).

Although the crane (10) of Yoshimatsu et al. does include wheels (not indicated) or crawlers (not shown), the wheels or crawlers are only used to move the entire crane between work sites, not to transport loads between different locations. Rather, the crane (10) operates to displace a load by swinging the boom (B) about a vertical axis (not indicated) while the entire crane (10) remains located at a generally fixed position. Further, the crane (10) must deploy the four outrigger jacks (105) or two extendable crawlers (not shown) prior to engaging the rope (104) to a load (W). In fact, the controlling device (20), which determines whether or not the crane (10) operating in a safe manner, specifically utilizes measurements of the extension distances (d_1), (d_2), (d_3) and (d_4) of the outrigger jacks (105) when calculating safe operating parameters (see column 4, lines 28-33; column 6, lines 10-14). Thus, it is apparent that the crane (10) disclosed in Yoshimatsu et al. does not move loads between different positions by mobilizing the entire the crane (10).

Further, as discussed above, the crane (10) uses a rope (104) to suspend cargo (C) from the boom (B). The rope (104) has a relatively substantial length (l), such that the load (L) is

located relatively distally from the upper end of the boom (B). Thus, the rope (104) clearly does not support the cargo (C) proximal to the upper end of the boom (B).

For the reasons above, Yoshimatsu et al. clearly do not teach or disclose a "frame configured or movement over the ground so as to transport...[a] load" nor a "boom attachment ...configured to support the load proximal to...[a] boom upper end" as recited in independent claim 1 as amended, and therefor do not anticipate the present invention. Thus, the rejection of amended claim 1 under 35 U.S.C. §102(b) should be withdrawn. Further, as claims 2-11 are each dependent upon independent claim 1, and claim 1 is not anticipated by Yoshimatsu et al., the rejection of claims 2-11 should also be withdrawn.

With regard to method claims 14-26, Yoshimatsu does not teach or disclose a method of operating a material handler that includes a frame "configured to mobilize so as to transport a load" as recited in claim 14 as amended. As discussed in detail above, the crane (10) is configured to swing cargo (C) suspended from a boom (B) when the frame (not indicated) is located at a fixed position and is supported by outriggers (or crawlers) extended to stabilize the frame. Thus, Yoshimatsu does not teach anything with regard to operating a material handler that mobilizes to transport loads between different locations.

Therefore, Yoshimatsu et al. do not anticipate the present invention as recited in claim 14 as amended, such that the rejection of amended claim 14 under 35 U.S.C. §102(b) should be withdrawn. Further, as claims 15-26 are each depend from independent claim 14, and claim 14 is not anticipated by Yoshimatsu et al., the rejection of claims 15-26 should also be withdrawn.

With regard to claim 28, Yoshimatsu et al. does not anticipate the present invention because the reference does not teach or disclose control system for a material handler that includes "a selected one of a plurality of different attachments" coupled to a boom nor "a selector configured to generate a third signal indicative of the selected one of the plurality of different attachments" as recited in clam 28 as amended. As discussed above, the material handler (10) of the present invention includes an attachment (26), such a fork, a bucket, a trust boom, or any other type of boom attachment, coupled to the upper end (24) of a boom (20). Depending upon which attachment (26) is selected, an attachment selector (46) is used to generate an attachment signal that is sent to a controller (34), the controller (34) using the signal to determine the extent of a safety boundary (40) to be displayed upon a screen (36).

As described above, Yoshimatsu et al. disclose a crane (10) that uses a rope (104) to suspend cargo (C) from a boom (B). The reference does not disclose that any other means besides the rope (104) is used to suspend cargo (C) from the boom (B). Therefore, Yoshimatsu et al. do not in any manner teach or even suggest a selector that generates signals to indicate which one of a plurality of attachments have been connected to a boom. As such, Yoshimatsu et al. do not anticipate the present invention as recited in claim 28 as amended, such that the rejection of amended claim 28 under 35 U.S.C. §102(b) should be withdrawn.

Rejections under 35 U.S.C. § 103

Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yoshimatsu et al., as discussed above, in view of Tiede et al. (U.S. Patent No. 6,041,582). Applicants respectfully traverse this rejection and requests that the rejection be withdrawn for the following reasons.

Claim 13 is dependent from independent claim 1. As discussed above with regard to claim 1, Yoshimatsu et al. do not anticipate the present invention because the reference does not teach or disclose a "frame configured or movement over the ground so as to transport the load" nor does it teach or disclose a "boom attachment coupled with the boom upper end and configured to support the load proximal to the upper end" as recited in independent claim 1 as amended. Tiede et al. do not teach a material handler for transporting loads, but rather teaches a tractor (10) that pulls or drags a farming implement (40) over ground such that tools (50) engage with and work soil (i.e., till, cultivate, etc.) (column 4, lines 56-65). The tractor (10) does not transport loads and does not teach or suggest anything that can be considered a boom attachment for supporting loads.

Therefore, as the present invention as recited in claim 1 is patentable over Yoshimatsu et al and Tiede et al., claim 13 is also patentable over these two references, such that the rejection of claim 13 under 35 U.S.C. §103(a) should therefor be withdrawn.

Patentability of New Claim 29

In the Office Action of February 26, 2003, claim 11 was indicated as being allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. New claim 29 has been added to present originally filed claim 11 in independent form

and includes all limitations of base claim 1 and intervening claims 7 and 9. Therefore, new claim 29 should be allowable.

Conclusion

Therefore, it is respectfully submitted that all claims pending in the present Application are in condition for allowance. Reconsideration and allowance of pending claims is therefore respectfully requested.

If the Examiner believes an interview, either telephonic or in person, will advance the prosecution of this matter, it is respectfully requested that the Examiner contact the undersigned at the Examiner's convenience.

Respectfully submitted,

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